

## ABSTRACT OF THE DISCLOSURE

In circuits and systems embodying the invention the condition of a battery may be tested and monitored while the battery is supplying a load current to a load and without interrupting that operation. A selectively enabled switch causes a test current to selectively flow through the battery and a test resistor of known value. The voltage across the test resistor is sensed to determine the value of the test current. The voltage across the battery is measured under two conditions, with the test current and without the test current flowing through it. These measurements and knowing the value of the test current enable the internal resistance of the battery under test to be calculated and monitored .